

June 2019 Update from the Field: Farm Youth

Health and Well-Being among Young People from Canadian Farms: Associations with a Culture of Risk-Taking. (2018). Pickett W, Berg RL, & Marlenga B. *Journal of Rural Health*, 34, 275-282.

Purpose: To determine whether patterns of adolescent risk behavior in rural populations, and especially farm populations, are associated with negative indicators of adolescent health and well-being, beyond an established association between risk-taking and injury. **Methods:** The study base was Cycle 7 (2014) of the Canadian Health Behaviour in School-Aged Children study. Children aged 11-16 years (n = 2,565; 2,533 weighted) who reported living or working on farms were matched within schools in a 1:1 ratio with other rural children. We related a scale describing engagement in multiple risk behavior to a series of indicators of adolescent health and well-being. **Findings:** Farm children, particularly male farm children, showed the highest levels of risk behavior. Multiple risk behavior was strongly and consistently associated with negative indicators of general health, mental health (life satisfaction, psychosomatic symptoms), and academic performance in all subpopulations. **Conclusions:** Adolescent risk behavior in rural populations, and especially farm populations, is common and associated with a variety of negative indicators of adolescent health and well-being. We speculate that the origins of this risk-taking lifestyle surround cultural definitions of self and identity, which have both protective and negative effects.

Influence of Permissive Parenting on Youth Farm Risk Behaviors. (2016). Jinnah HA & Stoneman Z. *Journal of Agromedicine*, 21(3), 244-252.

Farm youth continue to experience high rates of injuries and premature deaths as a result of agricultural activities. Increased parental permissiveness is positively associated with many different types of high-risk behaviors in youth. This study explored whether permissive parenting (fathering and mothering) predicts youth unsafe behaviors on the farm. Data were analyzed for 67 youth and their parents. Families were recruited from a statewide farm publication, through youth organizations (i.e., FFA [Future Farmers of America]), local newspapers, farmer referrals, and through the Cooperative Extension Network. Hierarchical multiple regression was completed. Results revealed that fathers and mothers who practiced lax-inconsistent disciplining were more likely to have youth who indulged in unsafe farm behaviors. Key hypotheses confirmed that permissive parenting (lax-inconsistent disciplining) by parents continued to predict youth unsafe farm behaviors, even after youth age, youth gender, youth personality factor of risk-taking, and father's unsafe behaviors (a measure associated with modeling) were all taken into account. A key implication is that parents may play an important role in influencing youth farm safety behaviors. Parents (especially fathers) need to devote time to discuss farm safety with their youth. Farm safety interventions need to involve parents as well as address and respect the culture and values of families. Interventions need to focus not only on safe farm practices, but also promote positive parenting practices, including increased parent-youth communication about safety, consistent disciplining strategies, and increased monitoring and modeling of safe farm behaviors by parents.

Review of Take-Home Pesticide Exposure Pathway in Children Living in Agricultural Areas. (2017). Hyland C & Laribi O. *Environmental Research*, 156, 559-570.

Background: Children of farmworkers may be chronically exposed to pesticides via the take-home exposure pathway. **Objective:** The goal of this review was to analyze scientific literature evaluating the role of the take-home pesticide exposure pathway in children of agricultural workers. **Methods:** A systematic review was undertaken and inclusion criteria were applied to identify original articles of interest. Of the 30 articles included in this review, some belonged to the same studies, resulting in a total of 23 studies. Eight studies assessed environmental samples, nine collected biological samples, and the remaining six analyzed both. Eleven studies compared pesticide levels between farm and non-farm families. **Results:** There is convincing evidence that children of farmworkers are exposed to pesticides at higher levels than "non-agricultural" children, even when residing in the same agricultural communities. These levels were shown to depend on the season, occupation, number of farmworkers per home, and type of crops. Other factors such as age, gender and, sex seem to also influence this pathway. Some studies have shown that pesticides used solely in agriculture are found only in households of farmworkers spraying these pesticides. Moreover, intervention studies have shown that behaviors among farmworkers can significantly lower exposure of people living in the same households as farmworkers.

Discussion and conclusion: The evidence presented here raises concerns regarding health effects associated with exposure to pesticides in children living in agricultural communities and indicates that strategies should be developed to reduce exposures in these populations.